

B1 subsequent secondary saponification reaction, in which saponification is carried out in a heat-exchanging reactor selected from the group consisting of: a platefin evaporator, a falling film evaporator, and a shell and tube evaporator while distilling off the carboxylic ester that is produced.

31. (Amended) The method of Claim 29, wherein the degree of saponification attained in said primary saponification reaction is 70 mole% or more and the concentration of the polyvinyl alcohol polymer in the saponification reaction solution is 10 wt% or more.

32. (Amended) The method of Claim 29, wherein the degree of saponification attained in said secondary saponification reaction is 85 mole% or more and the concentration of the polyvinyl alcohol polymer in the saponification reaction solution is 10 wt% or more.

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C1 33. (Amended) A method of producing polyvinyl alcohol polymer comprising:
saponification of a polyvinyl ester in an alcohol-containing organic solvent under the presence of a saponification catalyst, wherein saponification is carried out while distilling off the carboxylic ester produced by the saponification reaction, wherein saponification comprises:

a primary saponification reaction, in which saponification is carried out by mixing the polyvinyl ester in an alcohol containing organic solvent under the presence of a saponification catalyst, and

a subsequent secondary saponification reaction, in which saponification is carried out while distilling off the carboxylic ester that is produced, wherein said saponification reaction comprises:

a first stage saponification process, comprised in turn of a primary saponification reaction, in which a saponification reaction is carried out by mixing the polyvinyl ester in the alcohol-containing organic solvent under the presence of a saponification catalyst and

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a subsequent secondary saponification reaction, in which a saponification reaction is carried out while distilling off the carboxylic ester that is produced; and

a subsequent second stage saponification process, comprised in turn of a primary saponification reaction, in which a saponification reaction is carried out by mixing the polyvinyl ester in the alcohol-containing organic solvent under the presence of a saponification catalyst and

a subsequent secondary saponification reaction, in which a saponification reaction is carried out while distilling off the carboxylic ester that is produced.

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43. (Amended) The method of Claim 33, wherein said primary saponification reaction is carried out in substantially a complete mixing type reactor.

44. (Amended) The method of Claim 33, wherein said reactor is a kneader type mixer.

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48. (Amended) The method of Claim 29, wherein said alcohol-containing organic solvent comprises at least one solvent selected from the group consisting of dimethyl sulfoxide, dimethylformamide, dimethylacetamide, N-methylpyrrolidone, ethylenediamine, and diethylenetriamine.

Please cancel Claims 30, 41, 42, 46 and 51.

DISCUSSION OF THE AMENDMENT

Claim 29 has been amended by incorporating the subject matter of Claims 30, 41, 42 and 51 therein, except that the mole ratio recited in Claim 51 has been narrowed, as supported in the specification at page 20, lines 5-6. See also the specification at the paragraph bridging pages 3 and 4 for a definition of the meaning of "mole ratio of alcohol."

Claims 30, 41, 42 and 51 have been cancelled. Claim 46 has also been cancelled. Claims 31

and 32 have been amended to depend on Claim 29. Claim 33 has been amended into independent form. Claims 43 and 44 have been amended to depend on Claim 33. Claim 48 has been amended by deleting the term "type of". Also, the term "type" has not been carried over into above-discussed amended Claim 29.

No new matter has been added by the above amendment. Claims 29, 31-40, 43-45, 47-50, and 52-54 are now pending in the application. Claims 29, 31, 32, 38-40, 43-44, and 47-50 are active. The remaining claims stand withdrawn from consideration.

ELECTION

The Examiner has restricted the claimed invention as follows:

I. Claims 29-32, 38-44 and 46-51, drawn to a method of preparing polyvinyl alcohol (PVOH), classified in class 525, subclass 62.

II. Claims 33-37 and 45, drawn to a two stage method of preparing PVOH, classified in class 525, subclass 62.

III. Claim 52, drawn to a method of making a PVOH fiber, classified in class 525, subclass 56.

IV. Claims 53-54, drawn to PVOH, classified in class 264, subclass 176.1+.

The Examiner has further required an election of species from among:

- a: alcohol containing solvent
- b: saponification catalyst (Group I, and first stage Group II),
- c: second stage alcohol containing solvent (Group II), and
- d: second stage saponification catalyst (Group II).

The Examiner has also required an additional election of species based on the type of reactor.

Applicants elect Group I, i.e., Claims 29-32, 38-44 and 46-51, a mixture of dimethyl sulfoxide and methanol as the alcohol containing solvent, sodium methoxide as the saponification catalyst, and a shell and tube heat exchanging reactor as the type of reactor, all with traverse.

All presently elected claims read on the elected species.

Restriction is only proper if the claims of the restricted groups are either independent or patentably distinct (MPEP §803). The burden of proof is on the Examiner to provide reasons and/or examples, to support any conclusion in regard to patentable distinctness (MPEP §803). Applicants respectfully traverse the Restriction Requirement on the ground that the Examiner has not carried the burden of providing any material reasons and/or examples to support the conclusion that the claims of the restricted groups are patentably distinct.

The Examiner has categorized the relationship between the inventions of Groups I-II and IV, as process of making and product made, respectively. A process of making and the product made can be shown to be distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product, or (2) that the product as claimed can be made by another and materially different process. MPEP 806.05 (f).

The burden is on the Examiner to provide an example(s). The Examiner's example is that the product as claimed can be made by another and materially different process such as by multiple saponification treatments in dilute solutions of alcohol. However, this is simply speculation. Where is the Examiner's evidence in support?

The Examiner has categorized the relationship between the inventions of Groups IV and III, as product and process of use, respectively. A product and a process of using the

product can be shown to be distinct inventions if either or both of the following can be shown: (1) the process for using as claimed can be practiced with another materially different product, or (2) the product as claimed can be used in a materially different process. MPEP 806.05 (h). The Examiner's example is that the product as claimed can be used in a materially different process of using that product, such as a process to make a film. However, this too is simply speculation. Where is the Examiner's evidence in support?

The Examiner's basis for restricting the inventions of Groups I-III is that they comprise different steps. However, this in and of itself is not sufficient basis for demonstrating distinctness.

The Examiner's attention is drawn to the following from MPEP §803:

If the search and examination of an entire application can be made without serious burden, the Examiner must examine it on the merits, even though it includes claims to distinct or independent inventions. (emphasis added).

Search and examination of the entire application would not appear to impose a serious burden herein. Note also that Claim 52 depends on Claim 29. If Claim 29 is patentable, then Claim 52 is necessarily patentable as well.

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In view of the above, it is respectfully requested that the Restriction Requirement be withdrawn, and that all claims of the application be examined.

Applicants note, with the provisional election of a single species, should no prior art be found that anticipates or renders obvious the elected species, the search of the Markush-type claim will be extended. MPEP 803 and 803.02.

Yes